

## **Supplementary Material\***

Kuriakose S, Singh K, Pau AK, et al. Developing treatment guidelines during a pandemic health crisis: lessons learned from COVID-19. *Ann Intern Med.* 2021. [Epub ahead of print]. doi:10.7326/M21-1647

### **PubMed/MEDLINE (NLM) Search Strategy: 1 February 2020 to 30 March 2021**

Search Methodology

Supplement Table 1: PubMed/MEDLINE(NLM) Search Strategy - 2/1/2020 – 3/30/2021

Supplement Table 2: COVID-19 Treatment PubMed Monthly Results 2/1/2020 – 3/30/2021

\* This supplementary material was provided by the authors to give readers further details on their article. The material was reviewed but not copyedited.

## **Search Methodology**

### **Search Methodology for Identifying COVID-19 Treatment Articles**

The search strategy aimed to collect the number of articles published per month on COVID-19 therapeutics/treatment during the time period of February 1, 2020 to March 30, 2021.

To search for studies, the PubMed/MEDLINE(NLM) database was searched. There were no restrictions on language or study type. The COVID-19 search strategy was developed using a combination of terms in the [PubMed COVID-19 article search filter](#) , and a COVID-19 search strategy developed by NIH Librarians. Additional search terms were added to the COVID-19 search strategy by reviewing the 2019 NIH [COVID-19 Treatment Guidelines](#) sections on critically ill patients, therapeutic management of patients with COVID-19, antiviral drugs, anti-SARS-CoV-2 antibody products, cell based therapy, immunomodulators, antithrombotic therapy, supplements and concomitant medications. The PubMed [COVID-19 treatment filter](#) was used. The COVID-19 strategy and the treatment filter strategy were combined. (see Table #1) PubMed filters were applied to limit the publication dates by month.

Monthly search results were exported into EndNote 20 folders. Duplicate references were removed in Endnote 20. Final monthly totals were recorded in the search documentation provided and the attached Excel spreadsheet (see Table 2).

## **Database Search Strategy**

Database: PubMed

Vendor: National Library of Medicine

Date of Search:

Limits Used: (2/1/2020-3/29/2021)

**Supplement Table 1: PubMed/MEDLINE(NLM) Search Strategy - 2/1/2020 – 3/30/2021**

Search #	Concept	Search Strategy
#1	COVID-19	"COVID-19"[Mesh] OR (wuhan AND (coronavirus OR "corona virus")) OR "sars-cov-2"[MeSH Terms] OR "sars-cov-2"[All Fields] OR "nCov"[All Fields] OR "Novel Coronavirus" OR "Novel Corona virus" OR "COVID19"[All Fields] OR "COVID-19"[All Fields] OR "SARS-COV-2" OR "Severe Acute Respiratory Syndrome Coronavirus 2" OR "coronavirus disease 2019" OR "corona virus disease 2019" OR "new coronavirus"[All Fields] OR "new coronavirus infection"[All Fields] OR "new coronaviruses"[All Fields] OR "Severe Acute Respiratory Syndrome Coronavirus 2"[Supplementary Concept] OR "2019 ncov" OR "nCov 2019" OR "SARS Coronavirus 2" OR "SARS-CoV-2"[Mesh] OR "SARS-CoV-2 variants" [Supplementary Concept] OR "post-acute COVID-19 syndrome" [Supplementary Concept]
#2	Treatment	("therapeutics"[MeSH Terms] OR "therapeutics"[All Fields] OR "treatments"[All Fields] OR "therapy"[MeSH Subheading] OR "therapy"[All Fields] OR "treatment"[All Fields] OR "treatment s"[All Fields] OR "treat*"[All Fields] OR ("clinical trial"[Publication Type] OR "clinical trials as topic"[MeSH Terms] OR "clinical trials"[All Fields]) OR ("clinical trial"[Publication Type] OR "clinical trials as topic"[MeSH Terms] OR "clinical trial"[All Fields]) OR ("randomized controlled trial"[Publication Type] OR "randomized controlled trials as

topic"[MeSH Terms] OR "randomized controlled trial"[All Fields] OR "randomised controlled trial"[All Fields]) OR ("randomized controlled trial"[Publication Type] OR "randomized controlled trials as topic"[MeSH Terms] OR "randomized controlled trials"[All Fields] OR "randomised controlled trials"[All Fields]) OR ("therapeutics"[MeSH Terms] OR "therapeutics"[All Fields] OR "therapies"[All Fields] OR "therapy"[MeSH Subheading] OR "therapy"[All Fields] OR "therapys"[All Fields] OR "therapeutics"[All Fields] OR "therapeutically"[All Fields] OR "therapeutics"[All Fields] OR "therapeutics"[MeSH Terms] OR "therapeutics"[All Fields] OR "therapeutic"[All Fields]))

#3

Drugs

“artificial respiration”[tiab] OR "Respiration, Artificial"[MeSH Terms] OR ventilation[tiab] OR “extracorporeal membrane oxygenation”[tiab] OR "Extracorporeal Membrane Oxygenation"[MeSH Terms] OR ECMO[tiab] OR “high flow nasal cannula\*”[tiab] OR “positive end-expiratory pressure”[tiab] OR “positive pressure respiration”[tiab] OR “intermittent positive pressure breathing”[tiab] OR "Respiratory Therapy"[MeSH Terms] OR “oxygen inhalation therapy”[tiab] OR remdesivir[tiab] OR "Remdesivir"[Supplementary Concept] OR dexamethasone[tiab] OR "dexamethasone"[MeSH Terms] OR prednisone[tiab] OR "Prednisone"[MeSH Terms] OR methylprednisolone[tiab] OR "Methylprednisolone"[MeSH Terms] OR hydrocortisone[tiab] OR

"Hydrocortisone"[MeSH Terms] OR Baricitinib[tiab] OR  
 "Bamlanivimab"[Supplementary Concept] OR bamlanivimab[tiab]  
 OR casirivimab[tiab] OR "Casirivimab"[Supplementary Concept] OR  
 imdevimab[tiab] OR "Imdevimab"[Supplementary Concept] OR  
 "monoclonal antibody"[tiab] OR "Antibodies, Monoclonal"[MeSH  
 Terms] OR Immunoglobulin\*[tiab] OR "Antibodies, Viral"[MeSH  
 Terms:noexp] OR "convalescent plasma"[tiab] OR  
 Hydroxychloroquine[tiab] OR chloroquine[tiab] OR  
 "Chloroquine"[Mesh] OR ivermectin[tiab] OR "ivermectin"[MeSH  
 Terms] OR colchicine[tiab] OR "Colchicine"[MeSH Terms] OR  
 colchicine[tiab] OR fluvoxamine[tiab] OR "Fluvoxamine"[MeSH  
 Terms] OR "antiviral agents"[tiab] OR "Antiviral Agents"[Mesh] OR  
 "mesenchymal stem cell"[tiab] OR "Mesenchymal Stem  
 Cells"[Mesh] OR "corticosteroid"[tiab] OR "Adrenal Cortex  
 Hormones"[ Mesh:NoExp] OR tocilizumab[tiab] OR "Janus kinase  
 inhibitor"[tiab] OR "Janus Kinase Inhibitors"[Mesh] OR "JAK  
 inhibitor"[tiab] OR ruxolitinib[tiab] OR tofacitinib[tiab] OR  
 "tofacitinib"[Supplementary Concept] OR "Intravenous Immune  
 Globulin"[tiab] OR "Immunoglobulins, Intravenous"[Mesh] OR  
 "lopinavir-ritonavir drug combination"[Supplementary Concept] OR  
 ritonavir[tiab] OR ribavirin[tiab] OR "Ribavirin"[Mesh] OR  
 interleukin[tiab] OR "Interleukin-1"[Mesh] OR "Interleukin-6"[Mesh]  
 OR anakinra[tiab] OR "Interleukin 1 Receptor Antagonist

Protein"[Mesh] OR sarilumab[tiab] OR "sarilumab"[Supplementary  
 Concept] OR siltuximab[tiab] OR "siltuximab"[Supplementary  
 Concept] OR acalabrutinib[tiab] OR "acalabrutinib"[Supplementary  
 Concept] OR ibrutinib[tiab] OR "ibrutinib"[Supplementary Concept]  
 OR zanubrutinib[tiab] OR "zanubrutinib"[Supplementary Concept]  
 OR "intravenous Immunoglobulin\*" [tiab] OR "Immunoglobulins,  
 Intravenous"[Mesh] OR IVIG[tiab] OR "Interferon Type I"[Mesh] OR  
 "Interferon alpha"[tiab] OR "Interferon beta"[tiab] OR "Bruton's  
 Tyrosine Kinase"[tiab] OR "Bruton Tyrosine Kinase"[tiab] OR  
 "Agammaglobulinaemia Tyrosine Kinase"[Mesh] OR  
 anticoagula\*[tiab] OR antiplatelet\*[tiab] OR antithrombotic\*[tiab]  
 OR "Anticoagulants"[Mesh] OR "vitamin C"[tiab] OR "Ascorbic  
 Acid"[Mesh] OR "vitamin D"[tiab] OR "Vitamin D"[Mesh] OR  
 Zinc[tiab] OR "Zinc"[Mesh] OR "Angiotensin-Converting  
 Enzyme"[tiab] OR "Angiotensin-Converting Enzyme  
 Inhibitors"[Mesh] OR "Angiotensin Receptor Blockers"[tiab] OR  
 "Angiotensin Receptor Antagonists"[Mesh]

#4

#2 OR #3

#5

#1 AND #4

**Supplement Table 2: COVID-19 Treatment PubMed Monthly Results 2/1/2020 – 3/30/2021**

COVID-19 Treatment - PubMed Monthly Results			
Month	Date Range	Results	
February	2/01/2020-2/29/2020	272	
March	3/01/2020-3/31/2020	1,121	
April	4/01/2020-4/30/2020	3,796	
May	5/01/2020-5/31/2020	5,880	
June	6/01/2020-6/30/2020	7,276	
July	7/01/2020-7/31/2020	8,089	
August	8/01/2020-8/31/2020	7,202	
September	9/01/2020-9/30/2020	7,711	
October	10/01/2020-10/31/2020	7,396	
November	11/01/2020-11/30/2020	7,195	
December	12/01/2020-12/31/2020	6,800	
January	1/01/2021-1/31/2021	7,103	
February	2/01/2021-2/28/2021	5,778	
*March	3/01/2021-3/30/2021	4,682	
<b>TOTAL: (PubMed results)</b>		<b>80,301</b>	
<b>DUPLICATES REMOVED</b>			
Month	Date Range	Results	
February	2/01/2020-2/29/2020	271	
March	3/01/2020-3/31/2020	1,053	

April	4/01/2020-4/30/2020	3,608
May	5/01/2020-5/31/2020	5,225
June	6/01/2020-6/30/2020	5,799
July	7/01/2020-7/31/2020	5,663
August	8/01/2020-8/31/2020	4,987
September	9/01/2020-9/30/2020	5,219
October	10/01/2020-10/31/2020	5,014
November	11/01/2020-11/30/2020	4,512
December	12/01/2020-12/31/2020	4,384
January	1/01/2021-1/31/2021	4,794
February	2/01/2021-2/28/2021	3,875
*March	3/01/2021-3/30/2021	2,837

**TOTAL UNIQUE CITATIONS:**

(after duplicates removed) 57,241

\*March 30, 2021